receiving a connection request that includes a plurality of parameters, wherein the plurality of parameters includes a receiving party, and a connection type characteristic;

comparing the plurality of parameters with a table that stores network parameters to produce a first routing path to the receiving party, wherein the network parameters include links within the network and corresponding connection type characteristic capabilities for the links, wherein the connection type characteristic capabilities comprise partitioning of available bandwidth of the links between switched virtual connections and soft permanent virtual connections; and

establishing the connection along the first routing path.

23.   (Amended)   A link characteristic processor comprises:

a processing module; and

memory operably coupled to the processing module, wherein the memory includes operating instruction that cause the processing module to:

determine connection type characteristics for a link within the network, wherein the connection type characteristics comprise partitioning of available bandwidth of the link between switched virtual connections and soft permanent virtual connections;

advertise the connection type characteristics to at least one node in the network, wherein the node utilizes the connection type characteristics for selecting a routing path within the network for a connection.

29.   (Amended)   A connection processor comprises:

a processing module; and

memory operably coupled to the processing module, wherein the memory includes operating instruction that cause the processing module to:

receive a connection request that includes a plurality of parameters, wherein the plurality of parameters includes a receiving party and a connection type characteristic;

compare the plurality of parameters with a table that stores network parameters to produce a first routing path to the receiving party, wherein the network parameters include links within the network and corresponding connection type characteristic capabilities for the links, wherein the connection type characteristic capabilities comprise partitioning of available bandwidth of the links between switched virtual connections and soft permanent virtual connections; and

establish the connection along the first routing path.

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Please add claim 34 as follows:

34. A method for communicating link connection type characteristics in a network, comprising:

determining connection type characteristics for a link within the network;

advertising the connection type characteristics to at least one node in the network;

utilizing, by the at least one node, the connection type characteristics for performing a network function, wherein utilizing further comprises selecting, by the at least one node, a routing path within the network for a connection based on the connection type characteristics;

detecting a change in the link, wherein the change produces altered connection type characteristics;

advertising the altered connection type characteristics; and

compiling connection type characteristics for a plurality of links within the network to produce a characteristic data set, wherein selecting the routing path further comprises selecting the routing path using the characteristic data set, wherein selecting the routing path further comprises comparing characteristics of a connection request with the characteristic data set, wherein the routing path is provided in response to the connection request, wherein compiling further comprises compiling the connection type characteristics for the plurality of links with additional network characteristics to produce the characteristic data set.